

Self-Efficacy, Self-Determination, and Self-Regulation: The Role of the Fitness Professional in Social Change Agency

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Current epidemiological data reported by governing health authorities reveal the biopsychosocial complexity of health maintenance in the 21st century. As statistics reflect the insidious, worldwide impact of chronic disease and psychosocial stress, the medical domain continues to endorse multidisciplinary approaches to support the myriad systems that underpin health and well-being. With their scope of practice continually expanding to accommodate such needs, fitness professionals (FPs) have become a mainstay on the front lines of health behavior management in recent years. Beyond their role in facilitating physical health gains, contemporary FPs undertake the challenge of instilling health self-efficacy beliefs, reinforcing autonomy and independence, and reconciling the psychosocial barriers to prohealth behavior. By fostering self-efficacy, self-determination, and self-regulation as core values in clients, FPs implicitly promote competency perceptions, autonomy drives, and approach-oriented styles of coping—dynamic impacts that have significant implications for social change agency. In the following account, a theoretical framework is proposed that aligns characteristics of self-efficacy theory, self-determination theory, and self-regulation theory with the positive outcomes highlighted in Astin and Astin's (1996) social change model for leadership development. In addition, the transtheoretical model is referenced to highlight the intention-to-action stage of the behavior-change process. The following perspectives elucidate the pervasive opportunities for reciprocal learning that are first engendered within the FP–client encounter and subsequently applied in real-world social change practices.

Keywords: *fitness, self-determination, self-efficacy, self-regulation, social change*

Introduction

For many individuals, the choice to engage in physical exercise reflects an uncertain undertaking. Underpinned by a complex amalgamation of biopsychosocial factors, the barriers to engagement—and the effort it takes to overcome them—are in ubiquity and are often dramatically underestimated during attempts to adopt prohealth behavior (DiBonaventura & Chapman, 2008). Yet, across the life span, the capacity for individuals to navigate such barriers has implications for subjective well-being, quality of life, and, in many cases, longevity (Pryde & Kannel, 2011). The choice to engage or not engage in prohealth behaviors throughout all stages of development may have far-reaching impacts on the biological, psychological, social aspects of health and wellness—an assumption that underscores the inextricable connections between body, mind, and environment.

For this reason, interdisciplinary approaches to health maintenance have become the gold standard within the healthcare domain in recent years (Aiken, 2003; Carney, 2004; Urkin & Merrick, 2008).

However, an improbable irony exists: Despite the multidisciplinary effort of allied health professionals to prescribe prohealth practices, global obesity prevalence rates continue on an upward trajectory (Swinburn et al., 2011). Thus, an argument can be established that suggests it is not solely routine engagement in physical exercise and proper diet that drives prohealth behavior, but the internalization of prohealth attitudes, beliefs, and values that are integral to guiding the behavior-change process.

Domestically, statistics reported by the Centers of Disease Control and Prevention (CDC, 2013) reveal the current epidemiological magnitude of health inattention: More than 35% of all U.S. adults and approximately 17% of children aged 2–19 years are diagnosed with obesity or weight-related conditions—findings that were observed to increase sharply since the latter part of the 20th century. In addition, a 2008 report revealed the economic impact of weight pathology: Obesity-related healthcare expenditures totaled \$147 billion, with obese individuals paying approximately \$1,500 more on average than normal weight individuals. While current obesity prevalence rates do not appear to be moderated by age or gender, ethnicity, education level, economic status, and geographic region are differentially linked to obesity. Despite the relevance of sociodemographic factors, weight-related conditions such as heart disease, diabetes, and specific remitting cancers are often modifiable with adherence to recommended guidelines for physical exercise (CDC, 2013).

Given the well-documented role of motivation in health behavior (Aarts, 2007; de Ridder, De Wit, & Adriaanse, 2009; Dunsmore & Goodson, 2006; Urban, 2012), bridging the gap between intention (e.g., having the desire to engage in prohealth behavior) and action (e.g., engaging in prohealth behavior) is essential to the adoption of new behavior patterns (Hagger, Chatzisarantis, & Harris, 2006). Yet, given inadequacies in fitness awareness, exercise motivation, and good health practices upheld by medical practitioners in general (Lobelo, Duperly, & Frank, 2009), exploring the latent motivations and reconciling the psychosocial barriers to prohealth behavior may transcend the scope of practice upheld by the medical community. Despite the extent to which many individuals are eager to change their health behavior, many are presumably left to their own devices to discover their unique behavior change potential.

Increasingly, fitness professionals (FPs) have become a widely accepted component of the health prescription paradigm, with the United States Department of Labor (2013) reporting a projected 24% increase in employment for FPs between 2010 and 2020. Often regarded as the “face of the personal fitness industry” (Chiu, Lee, & Lin, 2010 [abstract]), FP services continue to generate ever-increasing revenue percentages within the health domain (Chiu et al., 2010). Unlike other health professionals, FPs address both the physical and psychological aspects of health and well-being (National Federation of Personal Trainers, 2013)—monitoring biomechanical function and form while teaching reflective, awareness enhancing practices that promote exercise motivation and adherence (Hunter, 2008). Beyond their role in health screening, program design, and fitness instruction (American College of Sports Medicine, 2013), FPs actively promote the value of communication, accountability, and trust within the context of their interactions with clients—implicitly enhancing the capacity of clients to endure the health behavior-change process (Asp, 2011). It is within the FP–client dynamic that a unique opportunity exists for FPs to impart the self-efficacy, self-determination, and self-regulation skills that have significant generalizability to myriad life domains—most notably, those associated with social change orientation.

Essentially, FPs uphold the multidimensional role of educator, advocate, coach, role model, and mentor. Given the tenuous nature of the behavior-change process (Prochaska, DiClemente, & Norcross, 1992), FPs can facilitate the reconciliation of psychological challenges (i.e., motivation, adherence, barrier efficacy) and stimulate logistical thinking, teach behavioral control, promote self-

responsibility, and enhance efficacy aptitudes in their clients. As advocates who empower clients to establish realistic and attainable goals (Doran, 1981), FPs can illuminate the mastery, competency, and self-administrative attributes in clients that may otherwise go undiscovered. As coaches who reinforce healthier lifestyles, FPs have the potential to not only indoctrinate the values that underpin prolonged adherence to prohealth behavior, but also inspire clients to positively influence their social context. As role models who instill the confidence to approach, not avoid, health goal pursuits, FPs can promote willingness in their clients to endure and ultimately embrace the challenges associated with social change agency.

With efficacy data revealing the appreciable impact of FPs with elderly (de Aguiar, Soares, & Guimaraes, 2008), cancer (Rajotte et al., 2012), and diabetic (Nansel et al., 2007) populations, one-on-one encounters with FPs potentiate the decision-making, problem-solving, and temporal skills that underpin successful behavior change efforts (Fischer & Bryant, 2008; McClaran, 2003). While the extant literature evinces the implicit role of FPs in supporting the biological, cognitive, affective, and social well-being of clients (Rosado et al., 2014), gaps in the literature elicit questions about how the self-efficacy, self-determination, and self-regulation skills imparted by FPs function as drivers of social change orientation in clients. As such, the following discussion aligns the attributes of the social change model of leadership development (Astin & Astin, 1996) against a proposed triadic framework based on self-efficacy theory (SET; Bandura, 1997), self-determination theory (SDT; Ryan & Deci, 2000), and self-regulation theory (SRT; Leventhal, Nerenz, & Steele, 1984) in an effort to highlight the integral role of competency beliefs, intrinsic motivation, and coping resilience skills in social change agency.

Theoretical Framework

The following section highlights the fundamental characteristics and the construct interconnectivity between the social change model of leadership development (Astin & Astin, 1996) and SET (Bandura, 1997), SDT (Ryan & Deci, 2000), and SRT (Leventhal et al., 1984). In addition, the transtheoretical model (TTM; Prochaska & DiClemente, 1983) is referenced to highlight the gap between the intention to change behavior and actual behavior change. The core characteristics of SET, SDT, and SRT are observed in Figure 1.

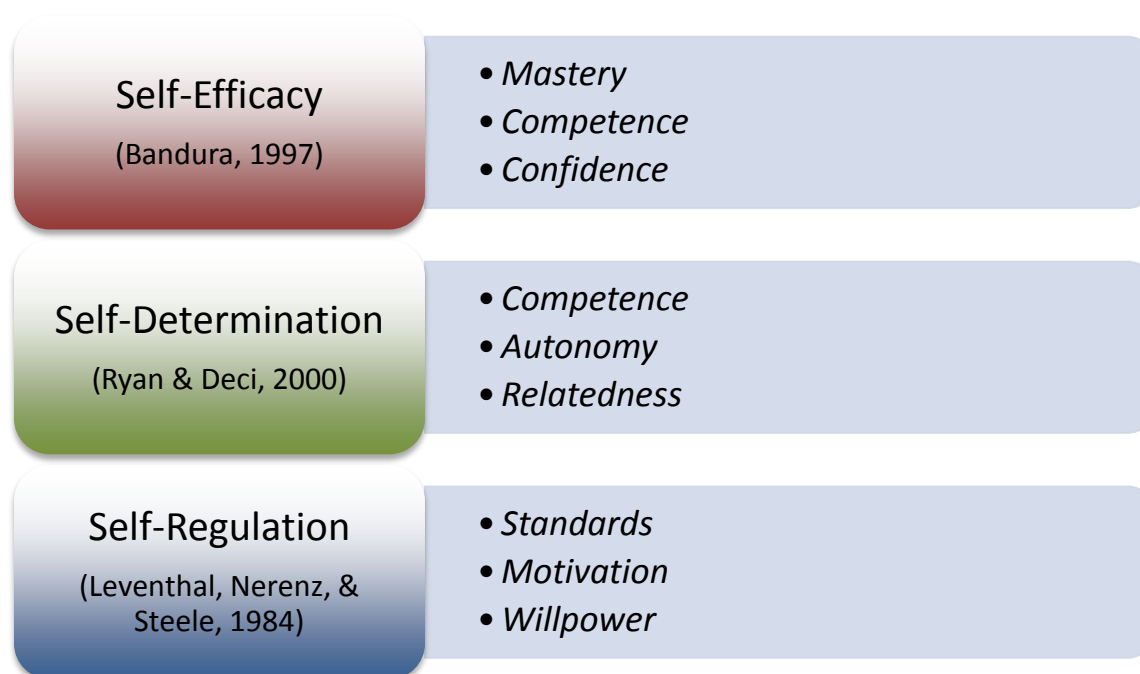


Figure 1: *The Fundamental Attributes of Self-Efficacy Theory, Self-Determination Theory, and Self-Regulation Theory*

Self-Efficacy Theory (SET)

Self-efficacy reflects the capacity for individuals to take measures to achieve targeted goals (Bandura, 1997). Fundamentally associated with social cognition (Bandura, 1986) and personal empowerment (Ozer & Bandura, 1990), beliefs play a central role in the extent to which individuals perceive their ability to master and feel competent about their ability to engage in specific behaviors. As such, mastery and competence beliefs are directly linked to self-efficacy perceptions (Bandura, 1986; 1997). Therefore, the choice to approach or avoid challenge could be significantly influenced by competency self-perceptions. Given its role in human motivation, self-efficacy has presumed linkages to the achievement orientations that are frequently associated with exercise adherence, as evidenced in its impact on perceived accomplishment, vicarious experience, social influence, and positive attitudes (Jackson, 2010). Current evidence highlights the wide-ranging impacts of FPs on client self-efficacy for understanding the mechanisms of the behavior-change process (Fischer & Bryant, 2008; Lubans, Plotnikoff, Jung, Eves, & Sigal, 2012).

Self-Determination Theory (SDT)

Self-determination is an intrinsic, self-sustaining form of motivation that is influenced by internal stimuli (Deci & Ryan, 1985; Ryan & Deci, 2000). Guided exclusively by inner drives, self-determined individuals seek to satisfy three primary needs in order to optimize their goal potentials: competence, autonomy, and psychological relatedness (Deci & Ryan, 1985). According to Deci and Vansteenkiste (2004), self-determined individuals internalize their ability to control behavior and satisfy mastery needs (i.e., competence), perceive themselves as causal agents of their destinies (i.e., autonomy), and are inclined toward assimilation with others (i.e., relatedness). As maintained by

Ryan and Deci (2006), autonomy is linked to self-regulation, which may impact goal directedness and persistence. Further, the perceived quality of specific contextual factors (i.e., relationships, environment) is integral to the optimization of self-determined potentials (Deci & Vansteenkiste, 2004). Ryan and Deci (2000) cited self-determined ideals as having high generalizability to educational, academic, vocational, and health domains. Finally, the extant literature highlights the profound impact of social support on autonomous, self-determined exercise intentions (Chatzisarantis, Hagger, Wang, & Thøgersen-Ntoumani, 2009; George et al., 2013; Rouse, Ntoumanis, Duda, Jolly, & Williams, 2011).

Self-Regulation Theory (SRT)

Self-regulation refers to the capacity to moderate the thoughts and emotions that govern human behavior (Leventhal et al., 1984). Given the extent to which emergent desires could influence behavior, self-regulation suggests that individuals consciously attempt to control behavior in an effort to mediate outcomes (Baumeister & Vohs, 2007). Self-regulation has direct linkages to motivation (Bandura, 1991); the motivation to achieve success is presumably linked to self-discipline and adherence to the strategies that promote goal achievement. According to Baumeister and Vohs (2007), standards (e.g., value-driven expectancies), motivation (e.g., adherence to standards), and willpower (e.g., impulse control) are primary determinants of self-regulated outcomes. A failure to self-regulate can lead to undesirable or high-risk behaviors, and could have significant social, economic, or health-related impacts (Baumeister & Vohs, 2007). Like self-efficacy and self-determination skills, enhanced self-regulation abilities could potentially facilitate aspects of the behavior-change process and promote well-being, adaptation, and survival. Current social cognition research highlights the predictive utility of social support for the self-regulatory behaviors associated with exercise adherence (Anderson-Bill, Winett, & Wojcik, 2011).

Transtheoretical Model (TTM)

The TTM (Prochaska & DiClemente, 1983) characterizes behavior change as a sequential process that occurs on a continuum and is influenced by one's readiness to transition through successive stages of change. According to Prochaska and DiClemente (1983), the TTM is based upon five stages that reflect a continual progression toward the internalization of a target behavior: precontemplation (e.g., not yet intending to change), contemplation (e.g., intending to change, but not within the near future), preparation (e.g., intending to change within the near future), action (e.g., engaging in the activities that support behavior change), and maintenance (e.g., sustaining the altered behavior patterns). Given the progressive/regressive nature of adopting new behaviors, Prochaska et al. (1992) argued that behavior change is often a stepwise process that lacks definitive linearity. For purposes of this discussion, the transition between the preparation and action stages—a period during which individuals attempt to negotiate how to convert intention into action (Prochaska et al., 1992)—will be highlighted.

Social Change Theory of Leadership Development

Astin and Astin (1996) posited the idea that leadership development occurs as a result of the indoctrination of seven core values (Figure 2). First, individual values refer to the consciousness of self (i.e., acknowledging the beliefs and attitudes that underpin the motivation to act), congruence (i.e., acting authentically and in accordance with personal beliefs), and commitment (i.e., directing energy toward the support of a common cause). Next, group values refer to collaboration (i.e., communal efforts toward a common cause that reinforce trust), common purpose (i.e., acknowledging mutual goals), and controversy with civility (i.e., acknowledging individual differences and the need

for compromise within the social scheme). Finally, a societal value—citizenship—suggests that all individuals become inextricably linked to, and ultimately committed to, the welfare of the group. Overall, Astin and Astin (1996) emphasized two objectives in their model: (a) to enhance individual self-knowledge (i.e., aptitudes, values, dispositions) in an effort to (b) enhance the level of leadership competencies required to positively influence the greater good.

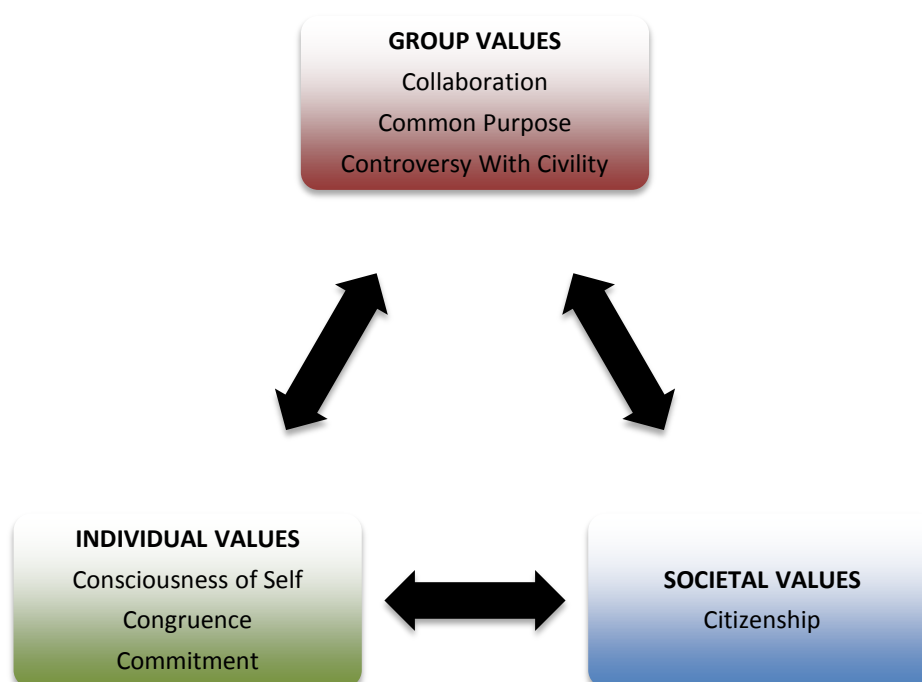


Figure 2: Astin and Astin's (1996) Social Change Model of Leadership Development

Self-Efficacy, Self-Determination, and Self-Regulation: The Impact of the FP and Social Change Skill Development

Within the FP–client dynamic, it is proposed that emergent self-efficacy, self-determination, and self-regulation characteristics are first applied to the health behavior-change process and, once internalized, such attributes are subsequently generalizable to social change skill development. Figure 3 links the theoretical construct to the corresponding social change skills.

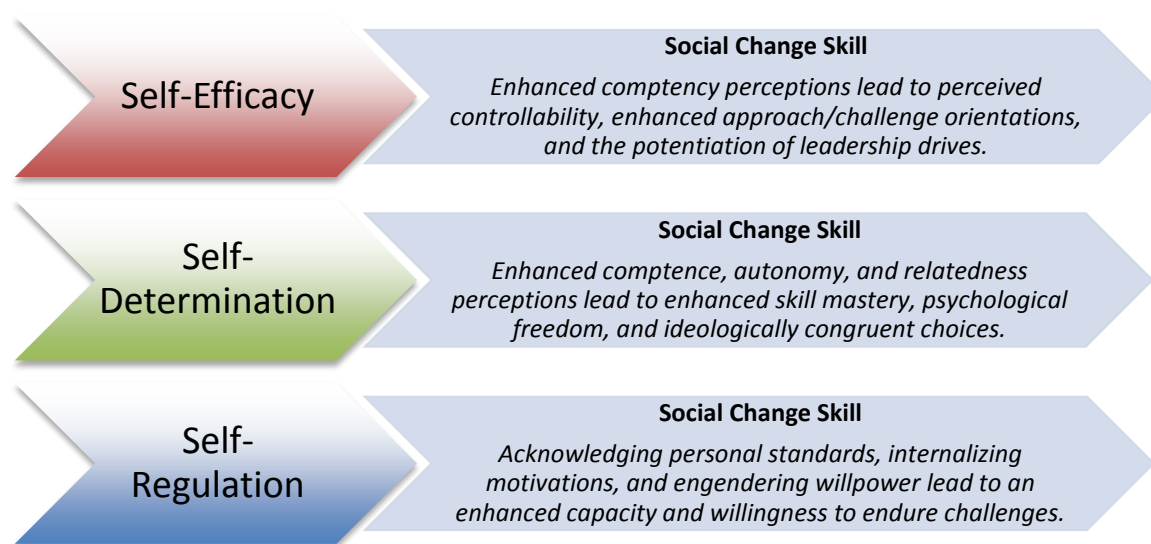


Figure 3: *The Proposed Linkages Between Self-Efficacy, Self-Determination, Self-Regulation, and Social Change Skill Development*

FP–Client Reciprocity: A Bidirectional Relationship for Personal and Social Change Agency

By definition, social interaction is a dynamic phenomenon; therefore, it can be assumed that the potential for mutual learning exists within any interpersonal exchange. Given the exigent need to gain greater phenomenological insight into health and well-being, the FP–client encounter provides a broad platform for interactive thought process, problem analysis, and perspective sharing. Applying Astin and Astin’s (1996) social change theory for leadership development, the following section highlights the implications of self-efficacy, self-determination, and self-regulation as they correspond to various social change outcomes.

Potential Social Change Outcomes Associated With Self-Efficacy

As FPs facilitate enhanced levels of health self-awareness in their clients, such developments could have implications for greater attentiveness to the beliefs, attitudes, and emotions that engender intrinsic forms of motivation (Astin & Astin, 1996). Throughout their personal behavior change experience, clients may experience heightened degrees of self-concordance—that is, an enhanced capacity for acting in alignment with personal interests and desires (Astin & Astin, 1996). As clients engage in self-reflection about their perceived mastery and competence for specific behaviors, they may perceive their behavior change experience as transformative and empowering and, thus, may develop an enhanced commitment to supporting a broader community (Astin & Astin, 1996). By reinforcing social awareness, clients can begin to collaborate and identify a common purpose with like-minded others—alliances that serve as the basis for team building and coalition development (Astin & Astin, 1996).

Essentially, clients function as feedback mechanisms for FPs given their presumed potential to elucidate previously unknown elements of the behavior-change process. Although ideological differences in perspective may emerge between FPs and clients, such disparities reflect potential opportunities for discourse that stimulate critical thinking and enhance conflict resolution skills (Astin & Astin, 1996)—thus inspiring FPs to adopt revisionist perspectives that promote new solutions for clients. When clients and FPs take active measures to engage in reciprocal communication, self-efficacy is presumably enhanced for both parties. Finally, as clients become more self-efficacious facilitators of health gains for themselves and for the greater community, they enhance their level of citizenship (Astin & Astin, 1996)—thus potentiating their contribution to an improved health sociodemography. As FPs encourage their clients to apply their preexisting strengths to the community (Clifton & Harter, 2003), skill competencies are maximized and advocacy orientations are reinforced—thus shifting the focus from individual interests (e.g., striving to achieve personal health goals) to collective interests (e.g., helping others to achieve their health goals).

Potential Social Change Outcomes Associated With Self-Determination

As FPs encourage clients to explore the intrinsic motivators that drive exercise intentions (e.g., interest, enjoyment, positive experience), consciousness of self is enhanced (Astin & Astin, 1996), which potentially decreases the tendency of clients to rely on extrinsic factors (e.g., fitness media, models) to drive adherence to prohealth behavior. By encouraging introspection and self-analysis, FPs can promote a more ideologically congruent exploration of the health beliefs and attitudes that have enduring meaning and purpose (Astin & Astin, 1996)—perceptions that may significantly reinforce self-determined health behaviors. As both FPs and clients engage in an ongoing self-evaluation process (Keast & Waterhouse, 2006), it is therefore presumed that individuals who operate from a self-determined—versus contextually determined—standpoint might experience an enhanced sense of passion, authenticity, and commitment to a common cause (Astin & Astin, 1996).

As clients become less dependent on external influences to shape their health behaviors, they may experience greater perceived competence about their ability and autonomy for guiding collaborations that promote enhanced health awareness for the greater community (Astin & Astin, 1996). As FPs and clients learn to see beyond the immediate challenges and establish more global conceptions of goals and objectives, their capacity for strategy implementation and productivity optimization is presumably enhanced. As clients communicate with FPs about their behavior change experiences, mutual dialogues provide ongoing opportunities to share values and resolve conflicts that promote a respect for individual differences (Astin & Astin, 1996). Here, self-determination reflects the congruent ideals, internalized attitudes, and global vision that potentiates social awareness, autonomous leadership pursuits, and positive social change outcomes.

Potential Social Change Outcomes Associated With Self-Regulation

As clients contemplate the perceived barriers to adherence, FPs have the potential to teach practical strategies designed to promote health behavior competencies, including, but not limited to, planning, time management, prioritization, and strategies that support decisional balance during the preparation-action stage transition (Fischer & Bryant, 2008; Prochaska et al., 1992). With self-regulation in children as a primary determinant of adult outcomes (Raver, 2012), clients who endure the health behavior-change process may observe gradual enhancements in barrier efficacy and an enhanced resilience to challenge—factors that promote change orientation (Schwarzer, 1992a, 1992b). In conjunction with self-awareness, motivation, empathy, and social skills, self-regulation is a central component of emotional intelligence (Goleman, McKee, & Boyatzis, 2006)—the foundation

upon which adaptive decisions can be made, problems can be solved, and ideological differences can be reconciled with civility (Astin & Astin, 1996).

As clients enhance their self-regulatory capacities, the development of adherence characteristics such as endurance and self-control may reinforce the confidence to commit to and see objectives through to fruition (Astin & Astin, 1996; Hagger, Wood, & Chatzisarantis, 2010). Further, it is perhaps critical to consider the extent to which acceptance of challenge may influence social change orientation in the fitness milieu: If clients acknowledge the idea that progress is not necessarily a fluid, linear process (Martin, Velicer, & Fava, 1996; Prochaska et al., 1992), they are presumed to be more apt to approach and remain resilient to future challenges. Through commitment, collaboration, and the identification of a common purpose (Astin & Astin, 1996), the inherent coping and adaptation challenges of the behavior-change process offer continual opportunities for mutual learning—a didactic template for social change agency.

Discussion

Given the proposed relevance of self-efficacy, self-determination, and self-regulation to the social change paradigm, the skills engendered through the FP–client dynamic serve as powerful catalysts for ideals and behaviors that transcend the fitness milieu. As such, the code of ethics set forth by the American College of Sports Medicine (2013) encourages FPs to look beyond their impact at the individual (i.e., client) level to their potential impacts within the larger community. As FPs take measures to enhance health skill development in clients, they implicitly indoctrinate elements of self-awareness, congruence, commitment, collaboration, common purpose, citizenship, and respect for individual differences—some of the fundamental tenets of social change agency (Astin & Astin, 1996).

As FPs induce changes in cognition, affect, and behavior that bolster client growth potentials (Fischer & Bryant, 2008), such interactions provide opportunities for clients to learn to employ the levels of self-efficacy, self-determination, and self-regulation required to persevere through the inherent challenges of the behavior-change process. When internalized, such abilities can be generalized to the critical thinking skills, advocacy aptitudes, and challenge orientations that have enduring social change relevance. The advent of computerized personal trainers (Buttussi, & Chittaro, 2008; Moller et al., 2012) raises questions about who, if anyone, will continue to educate, enlighten, and shape the prosocial values that have generalizability to social change orientation. Evoking the timeworn man versus machine argument, the impacts of FPs on the biopsychosocial substrates of change orientation are perhaps immeasurable.

Just as the impetus behind exercise motivation varies greatly among individuals (Carroll & Lanza, 2010), social change motivation is differentially associated with various sociodemographic domains. A 2012 social change impact report issued by Walden University (2012) revealed significant differences in social change orientations among age, gender, and ethnicity, with older adult females highlighted as exhibiting the greatest inclination toward change agency. Given the presumed linkage between biopsychosocial factors and change motivation, such evidence raises questions regarding the factors that promote internalized (i.e., it is my responsibility to take action) versus externalized (i.e., it is someone else's responsibility to take action) perceptions of accountability for change. Here, the embrace of a common vision and engagement in meaningful activity (Maton, 2008) are not only empowering contributors to the integrative sense of community shared by clients and FPs, but perhaps reinforce the notion of accountability as a mutually defined, team effort.

For FPs, teaching the skills that facilitate the adoption of new behaviors can be a highly tenuous undertaking due to the nature of the change process—what Prochaska et al. (1992) described as the non-linear “spiral pattern of change” (p. 1104, para. 6). Given the value of social support as a mechanism of adaptation (Elakkary, Elhorr, Aziz, Gazayerli, & Silva, 2006), the ideals of collaboration and common purpose are salient themes in the FP–client encounter. Once internalized, such ideals can inspire individuals to integrate with the larger prohealth community and ultimately enhance the quality of life of others (Deci & Vansteenkiste, 2004). As such, FPs and clients are equally encouraged to reframe away from the notion of the behavior-change process as one that is encumbered with obstacles to progress, and are instead encouraged to conceive of such challenges as continual opportunities for growth, learning, and integration. It is through this dynamism that elements of self-consciousness, congruence, commitment, collaboration, common purpose, citizenship, and civility are cultivated; social change identities are established and social responsibility is optimized (Astin & Astin, 1996)—for FPs, for clients, and for the greater good.

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